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Threats and burdens: Challenging scarcity-driven narratives of "overpopulation"

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ABSTRACT

The faulty notion that population size is a fundamental driver of scarcity undergirds discourses of demographic trends as both threats and burdens. This claim of population-induced scarcity builds on well-worn "overpopulation" narratives which are often simplistic and repetitive: the finite planet and its natural resources cannot support the overly large and growing global population. In this article, we analyze three interrelated discourses that portray contemporary demographic trends as threats and burdens. The first two discourses surround young and aging populations. The predicted threat of volatile and fertile youth populations from the global South is juxtaposed to the supposed burden of a stagnant aging population in the North. Together, these two narratives are often used to warn of global power shifts from North to South and dangerous flows of people from South to North. The third discourse we consider draws on and extends these population fears into the realm of climate change and security where so-called climate refugees are perceived to threaten Northern borders while the poor communities they come from, especially in Africa, are portrayed as potential instigators of climate conflict and war. Demographic discourses of threat and burden impart negative values to these abstracted groups as "overpopulations" who consume too many resources, perpetuate scarcity, and increase uncertainty and risk now and into the future.

0. Introduction

The faulty notion that population size is a fundamental driver of scarcity undergirds discourses of demographic trends as both threats and burdens. This claim of population-induced scarcity builds on well-worn "overpopulation" narratives which are often simplistic and repetitive: the finite planet and its natural resources cannot support the overly large and growing global population (Hartmann, 2010a; Hildyard, 2010). Rapidly changing demographic dynamics are made to fit this one-size-fits-all-times population picture.

Fears of population-induced scarcity are reinforced by problematic neo-Malthusian reasoning that attributes global problems such as poverty, environmental degradation and violence primarily to population growth, and advocates lowering fertility through contraception as the most effective solution (See Hartmann, 2016; Harvey, 1974). As such, it too often misrepresents demographic dynamics, stereotypes specific populations, depoliticizes inequalities in wealth and power, and naturalizes social and political conflicts.

In this article, we analyze three interrelated discourses that portray contemporary demographic trends as threats and burdens. The first two discourses surround young and aging populations. The predicted threat of volatile and fertile youth populations from the global South is juxtaposed to the supposed burden of a stagnant aging population in the North. Together, these two narratives are often used to warn of global power shifts from North to South and dangerous flows of people from South to North. The third discourse we consider draws on and extends these population fears into the realm of climate change and security where so-called climate refugees are perceived to threaten Northern borders while the poor communities they come from, especially in Africa, are portrayed as potential instigators of climate conflict and war. We argue that these discourses are strategically deployed to promote the interests of powerful economic, defense, development and family planning interests. As Rayner (2010) writes, the neo-Malthusian narrative of scarcity "represents the explicit boundary conditions of discourse and policy" (p. xvii).

While threats and burdens can be expressed as distinct categories, they function together to calculate risk and project population-induced scarcity into the future. Burdens have the potential to precipitate threats and vice versa, as we discuss below. At the same time, the concept of "burden" typically refers to projected economic stagnation.

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In contrast, the notion of "threat" is usually tied to international security.

The article is organized into four sections. Section 1 provides a brief overview of the key ideological roots of scarcity-driven narratives of overpopulation. Here, we consider the continuity of neo-Malthusian frames even as demographics change. Section 2 looks at how discourses of divergent age dynamics—young and aging populations—perpetuate threat and burden narratives of population-induced scarcity. Section 3 analyzes how certain assumptions about the relationship between population, environment and security undergird notions of climate refugees and climate conflict. Our concluding argument is that demographic discourses of threat and burden impart negative values to these abstracted groups as "overpopulations" who consume too many resources, perpetuate scarcity, and increase uncertainty and risk now and into the future.

1. Naturalizing inequalities through limits

Current population discourses of threats and burdens build on predictions and models linking population growth with natural resource and economic scarcities dating back to the early 1800s. Here we concentrate on the continuing influence of Malthus's "great restrictive law," "carrying capacity," and the "degradation narrative."

These scarcity narratives exist and persist despite changing demographic dynamics. Population growth rates have fallen faster than anticipated in most parts of the world since the 1960s and the average family size is now at about 2.5 children per woman (United Nations, 2017, p. 6). Growth rates have slowed due to a number of interwoven factors, such as higher child survival rates, improved health care, urbanization, basic hygiene and nutrition, and increased access to education, among others (UNFPA, 2016, p. 60). At the same time, the global population is still growing, although at a slower pace than in previous decades. Current population growth is mainly due to the large proportion of the population that is of reproductive age, as well as uneven total fertility rates between different locations, with higher rates (an average of 5 children per woman) in countries such as Nigeria, the Democratic Republic of Congo, the United Republic of Tanzania, Uganda and Afghanistan (United Nations, 2017, p. 6).

However, scarcity-driven narratives of overpopulation are markedly similar through time, no matter what the population size or rate of growth. When Malthus published his *Principles of Population* in 1798, world population was close to 1 billion. In the 1960s, when alarm about population growth was spreading, the population was at around 3 billion. It reached 6 billion by the year 2000, and is now is at around 7.6 billion. The UN's most-cited estimates—the median projections—predict that world population could grow to 9.8 billion in 2050 and 11.2 billion by 2100 (United Nations, 2017, p. 2).[1] Each of these numbers has been argued to represent "too many people" for available resources.

British political economist Thomas Robert Malthus made scarcity a law of nature (Hartmann, 2010a; Hildyard, 2010; Lohmann, 2005). The *Principles of Population* maintained that if left unchecked, human populations grow geometrically (exponentially), while food production at best follows an arithmetic (linear) path. This condemns humanity to a constant battle to provide sustenance for its growing numbers and leads to inevitable scarcity. "The race of plants and the race of animals shrink under this great restrictive law," he wrote, "and man cannot by any efforts of reason escape from it" (Malthus, 1914, p. 6).

With this argument, Malthus naturalized the inequalities of his time, including those produced by British colonialism (McCann, 2017; Wilson, 2012). Feminist historian Carol McCann critiques Malthus's "law" as a "narrative of hegemonic masculinity" which entrenches heteronormative, male-dominated households as the ideal of civilization and a cornerstone of imperialism. She argues that this stance served to divert attention away from the negative political and economic effects of colonialism. "By Malthus's calculations, famines and epidemics were nature's checks on sexual imprudence—not the result of colonial economic exploitation and political subjugation" (McCann, 2017, p. 30–1). These skewed values can be found in much demographic thinking from the post-World War II period onwards.

"Carrying capacity" is another foundational concept that supports limits-based narratives and the naturalization of inequality. It provides a "scientific" basis for modeling abstract, constant scarcity now and into the future. While there are variations on the concept, it generally suggests there is a direct relationship between the availability of resources, population size, and a corresponding demand for and depletion of resources (Höhler, 2005).

Historian and technoscience scholar Michelle Murphy analyzes how U.S. biologist Raymond Pearl's model of carrying capacity, or the "logistics curve," not only helped to define population as a problem, but also as a point of intervention to manipulate economic futures (Murphy, 2017, p. 004). Pearl based his "logistics curve" on experiments with fruit flies in a bottle. He overlaid his ideas about population-induced scarcity, drawn from the fruit flies, onto human populations. He argued that he found the same "logistics curve" in Algerian colonial data on birth rates. "Seeing Algeria as a natural petri dish, Pearl argued that as the population grew it hit a new upper limit resulting in a 'process akin to natural selection [in which a] good many natives had to be eliminated before the survivors were reasonably unanimous in their belief that the old days were gone forever'" (Murphy, 2017, p. 0005). Murphy contends that his work propelled what she calls the "economization of life," defined as a systematic valuation of life rooted in economic calculations of national worth (Murphy, 2017, p. 0006).

Geographer Nathan Sayre (2008) attributes the popularization of Malthusian carrying capacity to U.S. ecologist and ornithologist William Vogt and his influential 1948 bestseller *Road to Survival*. The book painted an apocalyptic picture of population pressures outstripping food production, degrading the environment, and causing wars that would wipe out three-quarters of the human race. Its success contributed to Vogt's selection as the national Director of Planned Parenthood of America (PPFA) where he played a significant role in setting U.S. international development agendas, including linking food aid with population control (Connelly, 2008, p. 130). Vogt's views were extreme: "He showed how, even while agreeing we 'be of one blood' and that everyone shared the same 'road to survival,' environmentalists could insist that many poor people would not make it and must be left to die" (Connelly, 2008, p. 130). Like Malthus, Vogt viewed scarcity as a natural check on population growth rates.

Vogt's *Road to Survival* also influenced Malthusian thinking in 1970s environmentalism. Apocalyptic versions of population-induced scarcity were popularized through a number of publications. U.S. biologist Garret Hardin's 1968 "Tragedy of the Commons" forecast environmental ruin of the commons and resulting scarcity due to overpopulation pressures. It is the most widely read environmental essay of all time. Paul Ehrlich predicted widespread famine in the 1970s in his bestselling book, *The Population Bomb*. In the Club of Rome's 1972 *The Limits to Growth* influential, yet flawed, computer projections warned of population pressures on natural limits and of resulting environmental and economic disaster.

In addition to Malthus's "great restrictive law" and "carrying capacity," "degradation narratives" are another cornerstone of the population and scarcity edifice. They figure prominently today in concerns about the so-called youth bulge (see Section 2), and climate refugees and climate conflict (see Section 3). Taking off in the 1970s, these narratives warned that in rural parts of the global South,

[1] Despite the continued slowing of growth rates, the UN projections of future growth have been upwardly revised since 2010. For instance, the UN's 2015 projections are higher than the 2012 estimate: 9.6 billion in 2050, and 10.9 billion by 2100 (United Nations, 2012). See Hartmann et al. (2015) for a discussion of critiques of this trend toward upward projections.

population pressure coupled with poverty is the main cause of land degradation (Hartmann, 2010b). Bilateral and multilateral development agencies have employed the narratives to justify external interventions such as top-down implementation of rural development policies and population control programs (Roe, 1995; Williams, 1995).

Over the course of the 1970s and 1980s degradation narratives expanded to include a negative view of migration. Again, poor people were depicted as those most responsible for environmental problems and scarcity, but with a new twist: once they depleted their immediate environments, they migrated to other marginal lands, setting in motion the same vicious downward spiral. In the 1990s, the narratives became an important component of "strategic demography" which is the framing of national security threats in demographic terms (Hartmann and Hendrixson, 2005). Here, the concept of "environmental security" took the degradation narrative one step further. For example, Canadian political scientist Thomas Homer-Dixon (1999) argued that "population and unequal access to good land force huge numbers of people onto marginal lands. There, they cause environmental damage and become chronically poor. Eventually, they may be the source of persistent upheaval, or they may migrate yet again, helping to stimulate ethnic conflicts or urban unrest elsewhere" (p. 155). In urban areas it is poor young men in particular who constitute a "youth bulge" that supposedly gravitates to political extremism.

Different permutations of the degradation narrative are now evident in climate change discourses. The reasoning is circular: even as climate change accelerates the pace of problems like desertification, peasants, whose population pressure drives deforestation and other forms of environmental degradation, also contribute to climate change and desertification. At the same time, peasants are presented as victims of climate change who lack the resilience to respond appropriately without outside intervention.

These purported connections between population growth, climate change and scarcity are then woven into rationales for family planning. For example, in "Family Planning and the SDGs," the U.S. Agency for International Development (USAID) authors claim: "Desertification occurs with intensive farming, as well as changing climate conditions. Population density contributes to soil depletion and erosion." The solution? Family planning. "Providing men and women with family planning to achieve their desires for smaller family sizes will contribute to reduced rates of deforestation, desertification and land degradation" consequently making them more resilient to climate change (Starbird et al., 2016, p. 201). However, as Sasser (2014) analyzes, this neo-Malthusian solution to climate change misrepresents the problem. Among other issues, it falsely collapses unequal production and consumption patterns into one universal human footprint that will supposedly be downsized with fertility reduction (p. 104).

The focus of these family planning efforts is primarily on youth populations. This reflects a larger trend of strategically deploying threat and burden narratives to promote anti-natal population policies aimed at youth. We examine this trend in the following section.

2. Threat of young populations vs. burden of population aging

Divergent age population dynamics feature prominently in threat and burden narratives of population-induced scarcity. Typically, the threat of large youth populations in the South is set against burdensome, aging Northern populations. For example, a 2016 publication from the accounting firm, PricewaterhouseCoopers (PwC) analyzes aging and youth populations in the context of a shifting global power balance, international insecurity, and climate change. The publication identifies the top five "megatrends" that threaten international security.[2] Megatrend number one, is a "shift in global economic power" due in part to the growing labor forces and number of consumers in emerging economies that will propel the economic dominance of a rising global South in contrast to the waning North (PwC, 2016, p.3). The South's economic ascendency is forecast to contribute to increased military power, as newly wealthy nations invest in defense and security (PwC, 2016, p. 5).

PwC links this anticipated shift in economic and military might with megatrend number two, "demographic shift." "Explosive population growth in some areas against declines in others contributes to everything from shifts in economic power to resource scarcity to the changes in societal norms" (PwC, 2016, p. 8). Here population-induced scarcity is thought to drive international insecurity. In the global North, scarcity relates to "competition for resources" between aging populations, who require health care and other services, and defense spending. This so-called competition could "crowd out" military expenditures, thereby weakening aging nations' military capabilities. Aging populations further reduce military might because they do not participate in ground troops. Overall, weakened military capacity could mean a loss of power for aging nations. According to PwC, "Resource constraint and extension of forces by Western nations in the Middle East and Africa will pose challenges to their ability to exert strategic security influence" (PwC, 2016, p.6). As we discuss below, this leaves aging nations supposedly vulnerable to volatile Malthusian migrants.

The diminishing power of aging nations is contrasted with the "youth bulge as a destabilizing force" and as an international security threat stemming from the global South (PwC, 2016, p. 10). PwC stereotypes the large populations of young men in Africa, Southeast Asia and Latin America as living in resource-poor contexts where scarcity contributes to "social discontent, crime, violence, and susceptibility to radical ideologies and movements" (PwC, 2016, p.10). The report concludes with a warning about how these geopolitical and military tensions will be further exacerbated by megatrend five, "climate change and scarcity." PwC predicts that regional and even global conflicts driven by population growth rates and climate change will erupt over natural resources, including water, wind, minerals, and energy. (PwC, 2016, p. 21).

PwC's *Five Megatrends* is an example of an overlapping business/security analysis that promotes popular and policy assumptions about population burden and threat from both ends of the spectrum of global age dynamics and in the context of competition between North and South. The approach builds on theories about youth populations, including the "youth bulge" theory and "demographic dividend" concepts, as well as the depiction of aging populations as burdens.

2.1. Youth as perpetual risk and threat

Like with PwC's "youth bulge as a destabilizing force," youth populations are commonly categorized as threats through direct or indirect reference to the youth bulge theory. The theory has variations, but typically states that a large proportion of young people in a population correlates with increased risk of political unrest. An early articulation of the theory defines a youth bulge as when young people aged 15–19 and 20–24 make up 20 percent or more of a country's adult population (Fuller and Pitts, 1990, p. 9). The exact proportion of young people in the overall population needed to create unrest is debated among scholars, as is the definition of "youth." Most of the theory' s proponents agree that youth bulge violence is not inevitable, but is the combination of population stress and lack of employment, resources, and education for young people. As such, states can mitigate or harness the impact of bulges through providing increased educational and employment opportunities.

[2] The PwC report builds on a U.S. National Intelligence Council report from 2012, *Global Trends 2030,* which also promotes the language of megatrends in forecasting geopolitical futures and stresses the importance of population growth and climate change in driving potential scarcities.

The youth bulge theory was cumulatively developed by a number of political science scholars and policy specialists, including Gary Fuller and Forrest Pitts (1990), Jack Goldstone (1991, 2002) Henrik Urdal (2004, 2012), and Richard Cincotta (2003, 2008). Geographer Gary Fuller claims to have first developed the theory as a predictive intelligence tool while he was a visiting scholar for the US Office of Global Issues in 1985. The theory was intended to help military analysts identify political unrest propelled by large populations of youth, particularly young men (Fuller and Hoch, 1998). Socio-biological variants of the theory blame testosterone and male "coalitional aggression" for driving young male violence (Hudson and den Boer, 2004; Mesquida and Weiner, 1999).

Men are the primary subjects of the youth bulge theory, often based in masculinist stereotypes—a noted bias of the theory. For instance, Urdal (2012) endorses this gendered assumption about the origins of violence: "Generally, it has been observed that young males are the main protagonists of criminal as well as political violence" (p.117). Barker and Ricardo suggest that sweeping statements such as Urdal's do little towards identifying the minority of men who perpetrate violence, but instead, "create self-fulfilling prophecies and strip young men of their individuality and subjectivity, and fail to explore the plurality of young men's experiences" (2005, p. 3).

Critics of the youth bulge theory maintain that it does not bear out in many geographic contexts. In *The Outcast Majority: War, Development and Youth in Africa*, Anthropologist Marc Sommers (2015) challenges the theory and other such demographic approaches to youth-oriented development policy based on his interviews with young people in war-affected African states. He argues that the conditions that drive supposed youth bulge violence are present in many relatively peaceful sub-Saharan African countries where the majority of youth are not violent (p. 24–25).

In a similar vein, Alfy (2016) contends that there is no positive correlation between youth movements and violence in Egypt, following the revolution of January 25, 2011. The author found that youth who resorted to violence to resist the government tended to be highly educated, rather than lacking access to education (p. 113). Likewise, Fortune et al. (2015) suggest that the youth bulge theory is too simplistic to comprehend the dynamics in "resource-rich West Africa" including economic growth accompanied by a lack of job creation and increased inequalities (p. 5). They argue that interventions based on mitigating youth bulge problems "often frame young people in an instrumentalist fashion as the problem to be managed and/or solved without paying sufficient attention to how social, economic, and security dynamics at the country, regional, and global levels interact with and impact upon young people's lives in different ways" (p. 5).

Despite its shortcomings, the theory is a popular way to explain complex geopolitical developments. It still signifies and seems to substantiate damaging stereotypes about young, brown men in particular as volatile and prone to terrorism and extremism. For instance, a 2016 Economist article titled, "Of Men and Mayhem: Violence," warns to "Beware the youth bulge" alongside pictures of brown men, some with guns, in front of the smoking shell of a burnt car (p. 11). As African scholar Michelle Gavin (2007) comments, "Any discussion of the youth bulge in Africa risks veering into the land of breathless alarmism—*young men and street gangs and guns, oh my!"*

Like the degradation narrative, the youth bulge theory portrays youth populations as both vulnerable to and primary drivers of economic and environmental scarcity. In this frame, scarcity elevates the threat of youth violence. As Roche (2010) notes, "the concept of the 'youth bulge' has developed from the Malthusian idea of ecological (im) balance and is now used by analysts exclusively as a politico-demographic term, with the connotation of a (male-dominated) security problem" (p. 406). For example, Roger-Mark De Souza (2015), Director of Population, Environmental Security and Resilience at the Washington D.C.-based Woodrow Wilson Center, links the youth bulge with natural resource scarcities and claims that climate change, the "food-water-energy nexus," and the youth bulge are leading to increased state fragility, particularly in African nations (p. 25).

This combination of neo-Malthusian ideas about population-driven scarcity and danger make the "youth bulge" a powerful concept which conveys risk and threat into the future, whether or not those ideas are specifically invoked in each instance. For instance, the United Nations Development Program's Resident Representative in Kenya remarked that "Africa's youth population is growing rapidly and is expected to reach over 830 million by 2050. Whether this spells promise or peril depends on how the continent manages its 'youth bulge'" (Chatterjee, 2017).

The open-ended threat of youth-propelled peril creates a space for different actors to coalesce around the idea of mitigating it. Youth bulge threat has galvanized international family planning efforts and revived overt neo-Malthusian discourses about population, scarcity and environmental ruin in family planning promotion. As Anthropologist Wangui Kimari (2018) comments, "The bulge discourse is also used to attack African women for continuing the very African folly of being too fertile – a longstanding colonial trope. As a 2012 billboard from the Uganda Health Marketing Group put it: '256,700 youths can't find jobs every year: smaller families will improve our quality of life'." She notes that policy focus on mitigating the youth bulge through family planning and entrepreneurship elides structural issues: "They never talk about shifting power from landowner to tenant, from ruler to ruled, from adult to young" (Kimari, 2018).

An example of current neo-Malthusian approaches is the UK All-Party Parliamentary Group on Population, Development and Reproductive Health's 2015 report "Population Dynamics and the Sustainable Development Goals." It promotes family planning as the number one policy recommendation to address population-induced scarcity, migration, and climate change and to reduce conflict (p. 4). Citing neo-Malthusian non-profit organizations like the UK-based Population and Sustainability Network, the Population and Sustainable Development Alliance, and Population Matters, the report paints a bleak picture of overpopulation, climate change devastation, food shortages and conflict. It includes a table with "lists of 'fragile' and high fertility states" which correlates high fertility with youth conflict and violence (p. 23).

The report propagates overtly racialized images of youth bulge threat. Wilson (2017) analyzes how the report "is strewn with images of black and brown men in which they are represented as a threat, both in terms of sheer numbers and through association with conflict and violence" (p. 441). On the front cover of the report is a picture of a crowded lifeboat, filled with brown young men, evoking population alarmist rhetoric of the past such as Garret Hardin's 1974 essay, "Lifeboat ethics: the case against helping the poor." The report discusses youth bulge violence in the Sahel as driven by population pressures and resource scarcity, which is illustrated with a photo of brown men with guns (UK All-Party Parliamentary Group on Population, Development and Reproductive Health, 2015, pp. 29–31).

In current neo-Malthusian discourse, voluntary family planning is thus positioned as reducing youth bulge violence (see for instance, De Souza, 2015; Cincotta et al., 2003; Population and Sustainability Network, 2012; Potts et al., 2015), promoting the Sustainable Development Goals (K4Health, 2015) and protecting the environment and reducing carbon emissions (Bixby Center for Global Reproductive Health, 2012; Bryant et al., 2009). The main point—that family planning is a lynchpin of development—supports the co-rationale that modern contraception is the most cost-effective, "best buy" development approach that achieves widespread health, security and environmental benefits (c.f. Bongaarts and Sinding, 2009; FP2020, 2016, p. 35; Singh et al., 2012). As such, contraceptives are seen as a neutral, technological intervention that is a win-win-win: for the environment, for women, and for economic growth. This magic bullet approach often skews the delivery of reproductive health services, limiting women's contraceptive options to a few donor-preferred, long-acting methods

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while ignoring their serious side effects (Hendrixson, 2018).

If successfully implemented, family planning is also presented as bringing on a "demographic dividend," the antithesis of the youth bulge. The demographic dividend theory maintains that large youthful populations can create economic growth and development under the right conditions, including increased youth education and economic policies that support free trade (Bloom et al., 2003, pp. 35–7). Supposedly, the key to achieving a demographic dividend is to reduce fertility and create the right age structure, with a larger working age population in relation to the proportion of children and the elderly. However, critics challenge this simple equation for growth and assert that additional workers can only drive growth in an economy that offers employment opportunities (Fischer, 2014p. 14).

A demographic dividend, like a longevity dividend (discussed below), is thought to alleviate the burden of population on resources. The concept is used to promote neoliberal economic growth as an unmitigated good, even as a key aspect of achieving the Sustainable Development Goals (Starbird et al., 2016). Neglected is serious consideration of what capitalist expansion might mean for the environment and climate change or for workers. As Wilson (2017) argues, "Contemporary population policies represent more than a discursive smokescreen for the destructive impacts of global capital accumulation—they are in fact deeply enmeshed in strategies for its expansion" (p. 433). Missing from the equation are alternative pathways to economic growth that are more socially just and environmentally sustainable. As economist James K. Boyce notes, we need to "grow the good and shrink the bad" (Boyce, 2013).

A demographic dividend is understood as advancing women's empowerment, particularly for girls because it means that women have successfully postponed childbearing to work or get educations. Wilson interrupts this ideal with her critique of gender programs within neoliberal development frameworks. She argues that many such efforts instrumentalize gender equality and "in fact rely upon, extend and deepen gendered inequalities in order to sustain and strengthen processes of global capital accumulation in several ways" (Wilson, 2015, p. 803). Women are expected to become more and more efficient by controlling their fertility, increasing economic growth, managing households, and reinvesting in their household economies rather than spending on themselves. Wilson argues that this ideal of a hyper-efficient female development subject is unachievable (Wilson, 2015, p. 824).

Nevertheless, the promises of the demographic dividend are positioned over and over again as a positive outcome of averting potential youth bulge danger (Hendrixson, 2014). For instance, a UN publication commemorating the African Union's designating the year 2017 as the "Year of Harnessing the Demographic Dividend Through Investments in Youth" suggests, "A ticking time bomb can be defused when governments invest well and can reap demographic dividends" (Africa Renewal, 2017). At the same time, the risk of the youth bulge is ever present should family planning or neoliberal markets fail. With this risk comes the potential to strain or block access to scarce resources. Further, as the youth bulge ages, it will become the aging population of the future. As such, it represents burden, forecast to stretch into the future.

2.2. Aging populations as burden

In economic, security and media analyses, aging populations are problematically framed as national burdens and thus as drivers of population-induced scarcity. Less often, aging populations are referred to as a potential "longevity dividend" which brings the possibility of economic surplus (Olshansky et al., 2012, p. 57). The burden/dividend binary construction of population aging combines an element of potential benefit and potential demographic disaster similar to the interplay of the youth bulge and demographic dividend.

This interplay is evident in the Global Agenda Council on Ageing Society's 2012 report portentously titled *Global Population Ageing: Peril or Promise?* In the preface, the Executive Chairman of the World Economic Forum warns that without proper planning policy-makers will find themselves "inundated by the effects of global ageing, such as a dearth of workers, strained pension systems, and overburdened health care systems" (Schwab, 2012, p. 2). However, the report later recognizes that common and damaging "doomsday scenarios" predict "workforce shortages, asset market meltdowns, economic growth slowdowns, the financial collapse of pension and healthcare systems, and mass loneliness and insecurity" (Beard et al., 2012, p. 4). These, the report states, are linked with population-induced scarcity discourses of the past. "Such tales are strongly reminiscent of the work by Paul Ehrlich and the Club of Rome in the late 1960s, which predicted mass starvation and human misery in the 1970s and 1980s as a result of rapid population growth, or what was termed 'the population bomb'" (Beard et al., 2012, p. 4).

As with population alarmist ideas of the past, ideas about aging populations as burden claim that the sheer numbers of older people will overwhelm available resources. Media coverage perpetuates such doomsday scenarios despite the mainstream economic position that population aging will not significantly impact economic growth in most countries (Bloom et al., 2011). An analysis of 1997–2008 *Economist* articles on the topic of population aging found that two-thirds of them represent older populations as burdens. "Older populations were portrayed as frail non-contributors to society. The alarmist words 'time bomb' were commonly used in relation to demography and pensions" (Martin et al., 2009, p. 1436). The authors argue that this popularizes "apocalyptic demography" and has policy implications because the *Economist* has a wide circulation among leaders and opinion makers. In a similar study, an analysis of three Swedish newspapers from 1998 to 2008 found that the papers presented population aging as a threat to Swedish welfare systems (Lundgren and Ljuslinder, 2011, p. 47). The papers used metaphors of scarcity and threat such as "demographic desert," "age bomb," "time bomb" and "timed demographic bombs" to communicate a heightened urgency around population aging (p. 52–3).

Demographer Ellen Gee (2002) argues that such doomsday thinking related to aging, like alarmist population frames of the past, serves to "reconstruct and redefine social problems in ways that fit a political agenda, or at least, that calibrate with current and popular ideological positions" (p. 750). Gee contends that neoliberal policy agendas benefit from "misconceptions and misapprehensions" that scapegoat aging populations for the failure of public health systems and other social services. Population aging is not the "social crisis/social problem that it is commonly believed to be," she writes, arguing that doomsday thinking serves to obscure issues of rising health costs within neoliberal markets, including expensive medications and pharmaceutical company profit margins (p. 752).

For decades, privatizing pensions has been one of the main neoliberal responses to aging populations. The World Bank's highly contested but influential report *Averting the Old Age Crisis* (1994) argued for the privatization of pensions to bolster strained public systems in the face of population aging (p. xiii-xiv). It was criticized for using shaky evidence to propose reforms that could threaten economic growth and undercut public pensions (Singh, 1996). Baker and Weisbrot (1999) challenge such demographic determinism in pension privatization arguments through the case of U.S. "baby boomers" and Social Security. They show that Social Security is securely funded in the long-term, even with conservative assumptions about economic growth: "So much for the 'demographic time bomb' with which the system's 'reformers' have been threatening us. With a few demographic facts dressed up as surprises—such as a rising elderly population or a declining ratio of workers to retirees—and an oversized dose of verbal and accounting trickery, opponents of Social Security have been able to create the impression that the program is unsustainable" (p. 5).

The supposed strain aging populations place on pension and health systems is consistently framed as a threat to defense spending. For instance, a 2000 RAND report *The Security Dynamics of Demographic*

Factors summarizes two of the common policy assumptions about the impacts of population aging. One is that population aging translates into a smaller military force for aging nations. Two, aging populations' drain on national resources will thus deplete defense budgets, which could reduce military capabilities (Nichiporuk, 2000, p. 27–8). A 2012 U.S. National Intelligence Council (NIC) report argues that there are multiple implications of such anticipated trends: "Analysts contend that some European and rapidly aging East Asian states might conclude that they cannot afford to maintain a sizeable military or extend their power overseas. For some low-fertility Western European countries that have poorly integrated Asian and African immigrants, the rapid growth of these minorities could erode social cohesion and promote reactionary politics" (NIC, 2012, p.20). Thus, population aging is seen as weakening nations' international military might, making them domestically vulnerable to "youth bulge" migrants and the threat they supposedly represent.

Construction of population aging as burden is therefore strategically wielded in the "reproduction of nations" (Schultz, 2015, p. 2.). Susanne Schultz calls the emphasis on aging populations as burden, the "age frame." It ascribes "to the quantity (or proportion) of people of pensionable age problems of national economies and crises of the social state, and to the quantity (or proportion) of employable or working age, prosperity and economic growth" (Schultz, 2015, p. 10). According to Schultz, "Catastrophic demographic scenarios of an ageing and shrinking German population" combined with concerns about the "scarcity" of skilled German labor have led to complicated, nationalistic valuations of demographic groups, a process which she terms "demographization." These scenarios have strongly influenced German population policy which focuses on increasing German birth rates over encouraging replacement migration (Schultz, 2015). At the same time that pro-natalist policies exist in Germany among a select, educated cohort, German international development agencies systematically promote long-acting reversible contraception in anti-natal population policies in countries in Africa (Bendix and Schultz, 2018).

Indeed, aging in "shrinking Europe" has led to considerable anxiety about replacement migration. In 2000, the United Nations Population Division asserted that it would be nearly impossible to achieve a replacement population level in European countries through migration, because the number of young migrants necessary to halt the trend of population ageing was unsustainable. Nonetheless, media outlets and advocacy groups at the time misrepresented the UN projections and suggested that replacement migration was the answer and Europe should brace itself for an unprecedented wave of migrants (Teitelbaum, 2004). Such concerns presaged current worries about climate change-driven migration. The aforementioned UK All-Party Parliamentary Group on Population, Development and Reproductive Health's report, for example, predicts high levels of migration driven by climate change in the second half of the 21st century (2015, p. 11). As Wilson (2017) highlights, the report represents the incipient tide of migrants as overwhelmingly male, brown, and black (p.441).

In policy circles, replacement migration is largely seen as unlikely to alter fundamentally the dynamics of population ageing, although it may alleviate some potential problems associated with it (Harper, 2013). However, the potential helpfulness of migration is supposedly tempered by nationalist pushback against immigrants. Rising numbers of migrants are seen as contributing to the problem, rather than being the victims of the politics of xenophobia, nativism, racism, and Islamophobia. Bloom (2016) asserts that "turning on the international migration tap as a response to population aging is possible, but it is unlikely to offer appreciable relief given social and political opposition to sustained mass immigration in most high-income countries" (p. 11).

While the potential for conflict exists—and certainly the tightening of international borders in the U.S. and Europe corresponds with nationalistic anxiety about immigration flows from the global South—it is nonetheless important to challenge assumptions of inevitable friction based on migration. Such assumptions can intensify ethnic and religious prejudices against Muslim communities in particular. In the next section we explore how such fears of migration factor into perceptions of the relationship between climate change and violent conflict.

3. Climate and security: reproducing the scarcity scourge and Malthusian migrant

Malthusian limits, carrying capacity, and degradation narratives are also very much evident in the climate and security field. As in notions of youth bulges and burdensome aging populations, they build on and reinforce fears of migration. One of the first examples of this trend is the 2003 Pentagon-commissioned report, "An Abrupt Climate Change Scenario and Its Implications for United States National Security" (Schwartz and Randall, 2003). The report argued that abrupt climate change, by diminishing carrying capacity, would provoke scarcities of food, water and energy, and these in turn would trigger violent conflicts and drive desperate people to wash up on Western shores. In the scenario better-off nations would be forced to "to build fortresses around their countries, preserving resources for themselves." U.S. borders would need to be strengthened "to hold back unwanted starving immigrants from the Caribbean islands (an especially severe problem), Mexico, and South America." The one glimmer of hope is that massive die-offs of poor people from war, starvation and disease would cull the human population, "which over time, will re-balance with carrying capacity" (pp. 2, 15, 18).

While the report was eventually criticized for its overly alarmist speculations, it helped set the tone for subsequent scenarios produced by foreign policy and defense think tanks that portrayed climate change as a dangerous national security threat rivaling terrorism. Malthusian stereotypes of poor people featured prominently in these as well.[3]

By 2007 the idea that climate wars and climate refugees posed a substantial security threat had spread in both policy circles and popular media. The conflict in Darfur, in Western Sudan, was depicted as the harbinger of the coming era of climate wars, with violence there attributed to the interaction of climate change, population pressures and resource scarcity (Ban Ki Moon, 2007; Faris, 2007; UNEP, 2007). The British NGO Christian Aid released a report "Human Tide: The Real Migration Crisis" that warned of millions of climate refugees roaming the globe, wreaking havoc and creating "a world of many more Darfurs" (Christian Aid, 2007). Another report by the London-based peacebuilding organization International Alert highlighted the risk of climate-related conflict and migration in poor, politically unstable countries (Smith and Vivekananda, 2007).

Citing the Darfur case, the British government brought the climate conflict issue before the UN Security Council for the first time in April that year (Harvey, 2007). In awarding the 2007 Nobel Peace Prize to Al Gore and the IPCC, the prize committee warned that climate-induced migration and scarcities could cause violent conflict and war (Norwegian Nobel Committee, 2007). Soon, in national security circles, especially in the U.S. and Western Europe, climate change came to be seen as an important "threat multiplier" that could help trigger widespread political instability in poor regions, especially in Africa (e.g., CNA, 2007).

Many researchers challenged these claims. In a chapter on human security, the IPCC's 2014 Fifth Assessment report concluded that most scholarly studies of the Darfur conflict found government practices to be far more influential drivers than climate variability. The report further noted that "similar changes in climate did not stimulate conflicts of the same magnitude in neighboring regions" and "in the past

[3] See, for example, the scenario exercise by the U.S. think tanks, Center for a New Security and the Center for Strategic and International Studies, published in K.M. Campbell, ed., 2008. Climatic Cataclysm: The Foreign Policy and National Security Implications of Climate Change. Washington, D.C.: Brookings Institution.

people in Darfur were able to cope with climate variability in ways that avoided large-scale violence" (Adger et al., 2014, p. 773).

The assumption that poor people will automatically resort to violence in periods of resource scarcity neglects the fact that in many cases the opposite is true, and that scarcity can induce greater cooperation and innovation. Writing in *Nature Climate Change*, geographer Clionadh Raleigh and colleagues contrast the expectation of climate conflict with the reality that:

> On the ground in developing countries, climate change and ecological stress is treated as a problem to be solved, not a harbinger of apocalyptic violence as it is viewed by many analysts. Indeed, during periods of hardship, higher levels of cooperation are found between erstwhile competitors…Yet cooperation is far less likely to make headline news. Alternative livelihoods, migration and changing agricultural patterns are all examples of how individuals and communities adapt to new and volatile circumstances…In terms of predicting and interpreting future insecurity in developing states, it is probably more critical to understand the 'nature of the state' than the 'state of nature'… People in poor countries do not respond to bad weather by attacking each other (Raleigh et al., 2014, pp. 76–77).

Another problem with seeing poor people as the main instigators of climate conflict is that it obscures the role of more powerful actors in fomenting violence, for example, through displacement of local communities in "green grabs" or coercive climate adaptation schemes. Furthermore, in focusing on armed conflict it ignores issues of structural violence. "After all," as sociologist Eric Bonds writes, "can we say that, if global warming continues unabated, the increasing numbers of children who will die from waterborne diseases is somehow peaceful, even if it does not trigger armed conflict?" (Bonds, 2016).

The notion of climate refugees also has serious flaws. That the effects of climate change—from sea level rise to severe storms to droughts and floods—may force or induce people to migrate, temporarily or permanently, is not in question. However, most serious migration researchers do not use the term climate refugee, preferring more accurate descriptors like "climate-related migration." The IPCC's Fifth Assessment report notes how the notion of climate refugees is "scientifically and legally problematic" (Adger et al., p. 771). At this point no one can predict the precise extent to which climate change will force migration and with the possible exception of sea-level rise, migration is too complex a process to label as simply climate-induced. Moreover, most researchers agree that climate-related displacement and migration are likely to happen mainly within national borders, not across them (Hartmann, 2010b, 2017). A report by the International Institute on Environment and Development (IIED) in London notes that despite claims about hundreds of millions of climate refugees, "The relatively high levels of uncertainty on the locally-specific impacts of climate change, combined with limited data on migration, especially internal and temporary movements, make it difficult if not impossible to predict with any precision future mobility patterns, let alone their size and direction" (Tacoli, 2011).

Yet despite the volume of critical evidence to the contrary, claims that climate change is going to set poor people against each other and push them *en masse* toward U.S. and European borders are as powerful as ever, occupying a prominent place in the political imagination of Western publics and policymakers. These ideas persist primarily because they are politically useful. By portraying climate change as a national security threat, for example, many environmentalists hope to get greater attention paid to climate change at the highest levels of government. In the U.S., where climate denialists and the fossil fuel industry exercise inordinate power over the state, this temptation to play the fear card is understandable, but hardly advisable (Hartmann, 2017).

For their part, U.S. and NATO defense interests deploy the threat of climate conflict and climate refugees to legitimize further military expansion into Africa (Hartmann, 2014) and beef up border enforcement, in the process providing lucrative contracts to defense, border and surveillance industries (Buxton and Hayes, 2016; Chaturvedi and Doyle, 2015; Miller, 2017). Defining climate change as a security threat also meshes well with the shift in U.S. defense policy toward a greater focus on counterinsurgency and stability operations such as local policing and aid delivery. A 2016 Department of Defense directive on climate change adaptation and resilience calls for the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict to incorporate "climate risks into stability operations policy, doctrine and planning, including the impact of climate trends on conflict and state fragility." It notes the "increased instability sparked by competition for limited natural resources" as a result of climate change (Department of Defense, 2016).

These strategic maneuvers on the part of environmentalists and defense interests are not purely cynical, however. The fact is that many people engaged in the climate and security field uncritically accept population and environment scarcity narratives because of their hegemonic 'common-sense' status in policy circles and the press.

Today, Syria has replaced Darfur as the new locus of climate war. Setting the process in motion was an article in the Proceedings of the National Academy of Sciences (PNAS) in March 2015. The authors argued that the drought that afflicted Syria from 2007 to 2010 was made two to three times more likely by human-induced climate change. They then asserted that the drought caused a mass exodus of peasants from rural to overcrowded urban areas, and that these migrants helped to trigger the civil war. While the authors provide only a single farmer's testimony in support of this latter claim, they reached the conclusion that human-induced climate change, in interaction with increased urban population pressures, is strongly implicated in the current Syrian conflict (Kelley et al., 2015).

The article spurred stories in major news outlets that climate change is an important cause of the Syrian war (Randall, 2016). People displaced by the conflict, almost eight million within the country, and five million outside, were then depicted in the press as climate refugees. As the refugee crisis in Europe worsened over the summer and fall of 2015 – by the end of the year a million people had arrived by boat – so did the climate refugee hyperbole. "How Climate Change is Behind the Surge of Migrants to Europe" was the title of a September Time Magazine article (Baker, 2015). That same month the Canadian National Observer carried the iconic photograph of a drowned Syrian boy on a Turkish beach with the headline, "This is what a climate refugee looks like" (Dimshaw, 2015).

Former U.S. President Barack Obama and Secretary of State John Kerry added their voices to the choir. In a May 2015 graduation address to the U.S. Coast Guard Academy, Obama spoke about the role of climate change in the Syrian civil war as well as in the rise of Boko Haram in Nigeria (Nakamura, 2015). At an international climate conference in Alaska several months later, Kerry raised the specter of millions of "climate refugees" leaving their countries. "You think migration is a challenge to Europe today because of extremism," he said, "wait until you see what happens when there's an absence of water, an absence of food, or one tribe fighting against another for mere survival." He likened the challenge to World War Two when "all of Europe was overrun with evil and civilization itself seemed to be in peril" (U.S. Department of State, 2015).

A recent study by climate scholars and regional experts carefully assesses the evidence behind the Syria as climate conflict thesis and finds it seriously lacking. For one, meteorological data do not support the finding that the drought was due to climate change. Secondly, drought-related migration was nowhere near the scale claimed by the PNAS article and others like it. The statistic that 1.5–2 million Syrians migrated as a result of drought is based on one humanitarian news report and does not align with much lower estimates by U.N. and Syrian government agencies. Moreover, it wasn't just the drought per se that induced migration from rural areas. Other factors, like the government's decision to reduce agricultural subsidies, must be taken into account. Thirdly, field research among migrants who did leave because

of drought has found little evidence of their participation in the 2011 political protests against the Assad regime that triggered the civil war (Selby et al., 2017; Selby, 2018).

What is perhaps the most worrying about the Syria climate conflict thesis is the way it depoliticizes and naturalizes the mass migration of war refugees, making it seem like a "new normal." Rather than acknowledging that the current crisis is politically rooted and time-specific, the message is that climate change will likely cause a state of permanent emergency in which nations should retreat from their commitments to provide asylum to refugees and instead fortify their borders and increase surveillance (Hartmann et al., 2015).

In the process the actual demographic dynamics of forced displacement are obscured. The UN High Commissioner for Refugees (UNHCR) estimates that by the end of 2016, 65.6 million people worldwide had been forcibly displaced by "persecution, conflict, generalized violence, or human rights violations." Of that number, 22.5 million are refugees, 40.3 million internally displaced, and 2.8 million asylum seekers. More than half of all refugees come from the war-torn countries of Syria, Afghanistan and South Sudan. Developing regions – *not* Europe or North America – host 86 percent of refugees under the UNHCR mandate. The top hosting countries are Turkey, Pakistan, Lebanon, Iran, Uganda and Ethiopia (UNHCR, 2017). These figures belie the image of the West being "overrun."

Since U.S. President Donald Trump has so far aligned himself with climate change deniers, it is unclear whether official U.S. defense policy will continue to assert the link between climate change, scarcity and violent conflict. Testifying before a Senate panel in early 2017, Secretary of Defense James Mattis did affirm the link (Revkin, 2017). Whatever the case, one can anticipate that Trump's denialism will push environmental actors to play the national security card in a sort of desperate counter-move to keep climate change on the policy agenda. At the same time Trump's alliance with the anti-abortion movement means that the population lobby may feel compelled to raise alarm about supposed demographic threats like the youth bulge to build support for international family planning assistance as a smart form of counter-terrorism. In other words, the demographic narratives we have explored here are likely to remain politically powerful in the foreseeable future.

4. Conclusion: beyond borders, boundaries and binaries

Demographic discourses of threat and burden impart negative values to the abstracted population groups as "overpopulations" who consume too many resources and perpetuate scarcity, uncertainty and risk into the future. Whether threat or burden, each of the population categories—youth bulge/demographic dividend, aging, climate migrant—uses that population's large size as an analytical starting point. In other words, the "over" of this population is what makes it pressing as a category for policy consideration.

De-valuation of population groups as "overpopulation" is all too familiar. As we have argued, it builds on the predictions and models linking population growth with natural resource and economic scarcities dating back to Malthus's "great restrictive law." This de-valuation serves to naturalize inequalities through limits. In the current neo-Malthusian frame, scarcity predetermines limits on young people to gain education and jobs, older populations to access health care, and migrants to access secure livelihoods and cultural acceptance. This depoliticizes inequalities rooted in wealth and power and ignores important issues of political economy. Faced with limits, these "overpopulations" supposedly react with violence, chaos and stress, contributing to the shift of global power from North to South.

The exception seems to be the "dividend" discourse, which suggests that the burden of young populations can be lessened. Here the "too many" can transform into neoliberal individuals who limit their fertility, boost markets and national economies, and contribute to military might. The "longevity" dividend similarly celebrates and instrumentalizes the older person who remains economically productive. Implicit in these dividend discourses is the threat that without such a neoliberal mobilization of labor, the burdens of young and aging populations portend scarcity, danger and the demise of Northern economic and military power.

Interventions that strategically mobilize demographic discourses of threat and burden too often deepen existing stereotypes based in gendered and racialized tropes of global South violence and scarcity. These forecast a state of permanent emergency and (over)population-based tension between the global North and South. This lends an urgency to neo-Malthusian, anti-natal population policy aimed at black and brown young women in the global South, particularly in Africa, as a supposed solution to a myriad of problems, including anticipated youth bulge violence, environmental sustainability and poverty reduction. At the same time, it heightens strategic demographic rationales for pro-natal policies aimed at "reproducing nations" among white women in some aging nations, like Germany. Both anti- and pro-natal fertility strategies are enmeshed in strengthening economic growth. Demographic discourses of threat and burden also contribute to military build-up in order to contain climate insecurities, including the predicted threat of migrants from the global South.

These interventions reinforce neoliberalism and militarism, heightening inequalities. They are not likely to address the root causes of pressing problems, particularly climate change, and may contribute to them. Certainly, the build-up of the U.S. military—the top institutional consumer of petroleum—has the potential to worsen rates of greenhouse gas emissions contributing to climate change (Nelsen, 2015).

Recognizing the deeply entangled and reinforcing demographic discourses of threat and burden further challenges scarcity-driven narratives of overpopulation. It provides a wedge to dislodge current categories of "overpopulations" and, from there, to question and break down the assumed boundaries between them. Such challenges help us better envision paths towards more socially just and environmentally sustainable futures.

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Further reading

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